



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,775	02/23/2004	Martin Grabner	03P00632	5500

24252 7590 09/18/2006

OSRAM SYLVANIA INC  
100 ENDICOTT STREET  
DANVERS, MA 01923

EXAMINER
----------

PAPE, ZACHARY

ART UNIT	PAPER NUMBER
----------	--------------

2835

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/782,775

Applicant(s)

GRABNER ET AL.

Examiner

Zachary M. Pape

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The following detailed action is in response to the correspondence filed 6/22/2006.

The 35 U.S.C. 101 rejection has been withdrawn in view of the remarks.

### ***Response to Arguments***

1. Applicant's arguments, see pages 2-5, filed 6/22/2006, with respect to the 35 U.S.C. 101 rejection have been fully considered and are persuasive. The 101 rejection of claims 1-14 has been withdrawn.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

While the Examiner can accept the reasoning presented by the Applicant's in the present remarks (I.E. via the 2<sup>nd</sup> law of thermodynamics heat is transferred from the components to the transformer), the Examiner notes that the specification provides no

support to the claims that the electrical component will act as a heat sink to the component since the specification fails to detail which device emits more heat. Citing this lack of detail, the Examiner is unable to understand how the device functions as argued/claimed (The Examiner further notes that it is entirely possible to have a transformer atop a component (as claimed) which would generate more heat than the component). Regardless the Examiner has presented a reference in the rejection below.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

As best can be understood by the Examiner, claims 1-6, 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spiteri (US 3,991,356) in view of Cromwell et al. (US 6,061,235).

With respect to claim 1, Spiteri teaches a circuit arrangement having a component (11-13) to be cooled, comprising an electrical component (Comprising 60, 11-13, etc.) in the form of a heat sink (See Abstract), which is an active part of the circuit arrangement, in particular an inductive component having a core (Where Spiteri describes a "traditional" transformer with a core and windings (14)). Spiteri is silent as to the use of a heat transfer device arranged between the component and the electrical

Art Unit: 2835

component. Cromwell et al. teaches the conventionality of utilizing a heat transfer device between a component and a heat sink (Column 6, Lines 61-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Cromwell et al. with that of Spiteri to provide a low resistance thermal path (Cromwell: Column 7, Lines 18-20).

With respect to claim 2, Cromwell et al. further teaches that the heat transfer device comprises a resilient mat (Column 6, Lines 63-67).

With respect to claim 3, even though the claims are limited and defined by the recited process, the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). In the present case, it is well known in the art to create pads as described by Cromwell et al. via a foamed mass.

With respect to claim 4, Spiteri teaches that the inductive component (10) is a transformer.

With respect to claims 5 and 6, Spiteri further teaches that the component (Comprising 60, 11-13, etc)) to be cooled is an integrated circuit (Where the PCB, diodes, resistor, etc. form the integrated circuit).

With respect to claims 8-13, the method steps recited in the claims are inherently necessitated by the device structure as taught by the Spiteri and Cromwell et al. references.

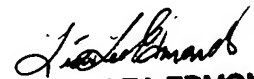
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZMP

  
**LISA LEA-EDMONDS**  
**PRIMARY EXAMINER**